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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,714	01/14/2004	Christopher J. Pettey	NEXTIO.0300	3838
23669	7590	03/18/2005	EXAMINER	
HUFFMAN LAW GROUP, P.C. 1832 N. CASCADE AVE. COLORADO SPRINGS, CO 80907-7449			NGUYEN, BRIAN D	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,714

Applicant(s)

PETTEY ET AL.

Examiner

Brian D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the application filed on 1/14/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/20/04 & 10/21/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "ATA controller" in claim 45.

Claim Rejections - 35 USC § 101

3. Claims 1-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. "a packet" is a data structure which is clearly non-statutory.
4. Claims 26-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. "an OS domain header" is a data structure which is clearly non-statutory.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 36-39, 41-44, 46-49, 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franke et al (2004/0117536) in view of Beck et al (6,665,304).

Regarding claim 36, Franke discloses a method and a system to allow multiple root complexes (processor blades) to share (I/O) endpoints (see figure 9; paragraphs 0063-0065). Franke does not specifically disclose providing a field for inclusion the packet to identify the root complex for the packet; wherein input/output (I/O) endpoints utilize the field provided in said step of providing a field to identify the root complex for the packet. However, in order for a packet sent from a client to one of the blades, it is obvious that the packet must include an identifier to identify the blade (destination). In other words, the packet must include a field for inclusion the packet to identify the root complex for the packet. Beck explicitly discloses the use of a field for inclusion the packet to identify the root complex (processor) for the packet (see figure 3; col. 4, lines 23-28; col. 4, line 61-col. 5, line 14; col. 5, line 46-col. 6, line 6). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a field for inclusion the packet to identify the root complex for the packet as taught by Beck in the system of Franke so that a packet from a client processor can be routed to an appropriate server processor.

Regarding claim 37, Franke discloses the root complex comprises a network computer server (see figure 1; paragraph 0016).

Regarding claim 38, Franke discloses the network computer server is blade server (see figure 9).

Regarding claim 39, Franke discloses the root complex comprises an operating system domain (see paragraph 0039).

Regarding claims 41-44, Franke discloses an Ethernet controller, a disk storage controller and a fiber channel controller (see figure 9; paragraph 0064-0065).

Regarding claims 46, 48-49, Franke discloses a method and a system to allow multiple root complexes (processor blades) to share (I/O) endpoints (see figure 9; paragraphs 0063-0065). Franke does not specifically disclose embedding an OS Domain number with the packet associate the packet with one of the plurality of OS Domains; transferring the packet with the embedded OS Domain number to a shared I/O switch; examining the embedded OS Domain number to determine a port within the shared I/O switch associated with the one of the plurality of OS Domains; and transferring the packet to the one of the plurality of OS Domains using the port. However, in order for a packet sent from a client to one of the servers, it is obvious that the packet must include an OS domain number (destination address). Beck discloses add an address to the packet and transmit the packet to its destination based on the destination address (see figure 3; col. 4, lines 23-28; col. 4, line 61-col. 5, line 14; col. 5, line 46-col. 6, line 6). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to add an address to the packet as taught by Beck in the system of Franke so that a packet from a client processor can be routed to an appropriate server processor.

Regarding claim 47, Franke discloses an network interface controller (see figure 9; paragraph 0064-0065).

Regarding claim 51, Franke discloses the load/store fabric maps memory space for the shared I/O switch within memory space of the one of the plurality of OS Domains (see paragraph 0065).

Regarding claims 52-54, Franke does not specifically disclose the limitations of claims 52-54. However, Beck discloses forming an OS Header field; and including the OS Header field within the packet for transfer to the shared I/O switch and the use of look up table for routing (see source/destination addresses and source/destination ports in figure 3; col. 6, lines 4-6 where the destination address is added to the packet; and col. 12, lines 44-65 for routing table). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form a header field and using the look up table for routing as taught by Beck in the system of Franke so that the packet can be routed to its destination.

7. Claims 40 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franke et al (2004/0117536) in view of Beck et al (6,665,304) as applied to claims 36 and 46 above, and further in view of Schaefer et al (2004/0123014).

Regarding claims 40 and 50, Franke in view of Beck does not specifically disclose the use of PCI express. However, to use PCI express or any other standards is a matter of choice. Schaefer discloses the use of PCI express (see paragraph 0016). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use PCI express as taught by Schaefer in the system of Franke in view of Beck in order to meet specific needs.

8. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franke et al (2004/0117536) in view of Beck et al (6,665,304) as applied to claim 36 above, and further in view of Collins et al (2004/0133751).

Regarding claim 45, Franke in view of Beck does not specifically disclose the use of ATA controller. However, this feature is well known in the art. Collins discloses the use of ATA

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controller (see paragraph 0014). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the ATA controller as taught by Collins in the system of Franke in view of Beck in order to meet specific needs.

Conclusion


9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pan et al (2004/008104), Flynn et al (2004/0088414), Huang et al (2004/0098532), Heil (2004/0111559), Arimilli et al (2004/0117598), Larson et al (2004/0073712).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D Nguyen whose telephone number is (571) 272-3084. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 3/16/05
BRIAN NGUYEN
PRIMARY EXAMINER